Mookerjee fellowships, Swarnajayanti fellowships, young scientist projects and awards, the JC Bose and Ramanujan fellowships—the Government has instituted several attractive schemes to attract meritorious students to a career in science. These are supplemented by relatively liberal research grants available today to active researchers. Through the FIST programme and by establishing research facilities and centres of excellence, the Government has also tried to make available competitive research infrastructure to our basic science researchers. The latest in this long series of promotional steps is the establishment of two Indian Institutes of Science Education and Research (IISERs) at Kolkata and Pune, respectively, while the country certainly needs more such institutions, it is equally important to raise the level of our large number of universities and colleges which fall into the domain of State Governments.

(d) and (e) The fellowship schemes and R&D funding schemes referred to above are already generating trained manpower and creating a pool of researchers in science. Also, as mentioned above, the Government has already created a number of centres of excellence in sciences and would continue to do so in future, as and when specific need is felt in any discipline for enhanced level of research infrastructure.

Progress in certain areas of technology

2073. SHRI S. ANBALAGAN: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether Government are aware that Indian research establishments have made very little progress in frontier areas of technology such as robotics, micro-electronics, nano-technology, super conductivity, fullerent, etc. despite spending huge amounts of money for research purposes;

(b) if so, the details thereof and the corrective steps taken during the last two years and proposed to be taken in the near future;

(c) whether it is also a fact that many research laboratories of CSIR are lacking in professional attitude; and

(d) if so, the corrective steps proposed to be taken in this regard particularly to fix responsibility for failure in research advancement?

THE MINISTER OF SCIENCE AND TECHNOLOGY (SHRI KAPIL SIBAL): (a) The Indian research establishment have made good progress commensurate with the investments made in various frontier areas of technologies such as micro-electronics, robotics, nano-technologies etc. For example, some of the achievements have been the development of high temperature superconducting magnets and robotics for remote handling applications to mention a few.

(b) Does not arise.

(c) No, Sir.

(d) Does not arise

Nano-technology

2074. DR. K. MALAISAMY: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether it is a fact that in Nano-technology, the international corporate spending by firms like IBP, HP, Motorola, GE, etc. has risen to $ 3.8 billion in 2004;

(b) whether there is any such research attempt on the part of Indian firms; and

(c) the steps taken by Government to assist the R&D in the area?

THE MINISTER OF SCIENCE AND TECHNOLOGY (SHRI KAPIL SIBAL): (a) Yes, Sir.

(b) In India also, some major corporates like Mahindra and Mahindra, Tata Chemicals, Reliance Industries, Reddy's Labs, Murugappa Chettiar Group, Orchid Chemicals and Pharmaceuticals, etc. have started investing in Nano-technology research at a modest level. Mahindra and Mahindra and Reliance have also established Nano-technology centres.

(c) the Government has been taking several steps to promote R&D in this area. Over 100 research projects have been funded. Several centres of excellence on nano-science and Nano-technology have also been established. A number of post-doctoral fellowships have been awarded. Several national and international conferences, schools, etc. have been organized. The Government has spent approximately Rs. 200 crore over the past 5 years to promote R&D in this area. A bigger